Serial No. 08/944,850 Filed: October 6, 1997

In the Claims

Please cancel claims 28-38.

Please add the following new claims:

-- 39. An assay method comprising:

- a) providing a sensor array comprising:
 - i) at least a first subpopulation comprising first sensor elements; and
 - ii) a second subpopulation comprising second sensor elements;
- b) adding a sample comprising a first target analyte that binds to said first sensor elements;
- c) measuring first fluorescent signals of at least two of said sensor elements of said first subpopulation; and
- d) summing said first fluorescent signals.
- 40. A method according to claim 39 further comprising:
 - b) adding a sample comprising a second target analyte that binds to said second sensor elements:
 - c) measuring second fluorescent signals of at least two of said sensor elements of said second subpopulation; and
 - d) summing said second fluorescent signals.
- 41. A method according to claim 39 wherein said elements comprise beads.
- 42. A method according to claim 39 wherein said sensor array comprises beads distributed in wells.
- 43. A method according to claim 39 wherein said sensor elements comprise chemical functional